

# *LOG\_aLevel*

## *Water Level and Wave Measurement for Jack-Ups*

**Autonomous Remote Sensing of Water Level,  
Waves and Tides**

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**Autonomous Remote Sensing of Water Level,  
Waves and Tides**

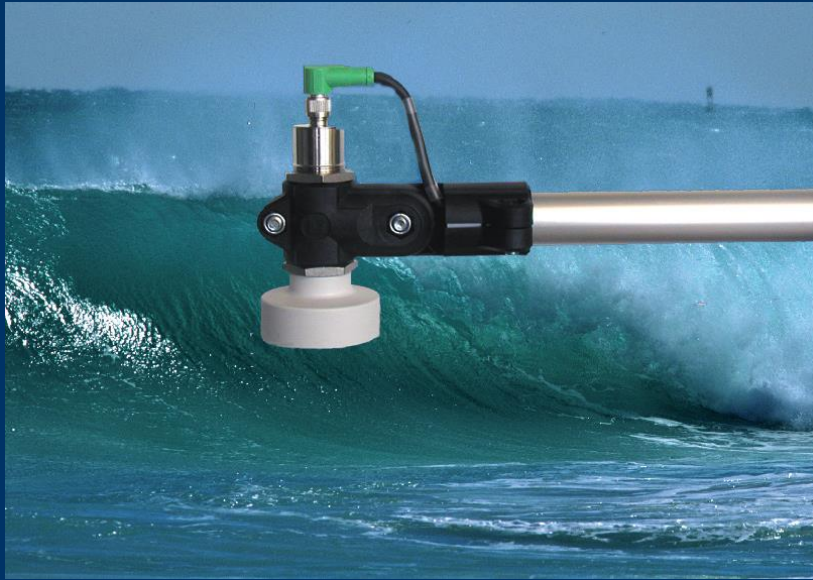
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- Monitoring & Operations Safety
- Water level & wave monitoring before & during operations
- Increased safety during lowering
- Sea state information for hassle free logistics of off-shore constructions
- Significantly higher efficiency of operation
- Easier and reliable decisions for the operation
- Reliable log of sea state for the principal
- Wave parameters like  $H_s$ ,  $H_{max}$  and  $T_s$  to estimate the load to the construction
- Ship induced Wave Measurements from other ships in the vicinity
- Load Determination for Hydraulic Engineering (Dams/Ship induced Waves etc.)
- Event Alerting System (SMS & E-Mail alarming)
- Extension of the system to complete Hydrological & Meteorological Monitoring Station
- SCADA / Fleet management integration





- accurate
- calibration-free
- robust and cost-effective
- remote sensing
- low maintenance system
- covers all kinds of water level and water dynamics

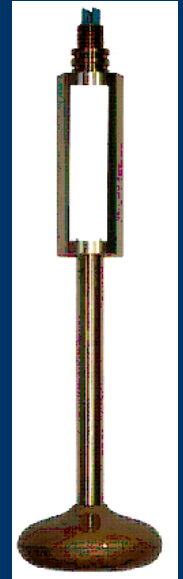
## Data Logger CF or SD



Integration with all possible sensors & systems including temperature, humidity, precipitation, barometric pressure, visibility and more...



### 2D Inductive Current Meter



Multi-parameter weather station with the 6 most essential weather data

### GSM/GPRS and Radio Modules



### AIS AtoN



### 2D Ultrasonic Anemometer

- In combination with the inductive 2D current meter, the wave direction can be cost-effectively estimated
- Other option includes the use of a General Acoustics ULS Advanced Field system (please contact General Acoustics or your local agent for more information)



- Measuring range: up to 30m
- Field accuracy: 1-2 cm
- Resolution: 1 mm
- Sample rate: up to 5 Hz (user selectable)
- Averaging (HW) : none/10s/30s/1m/5m/10m  
(SW) : none/1s/2s/5s/10s/20s/30s//1m/2m/5m/10m
- Time accuracy: 1 ms GPS synchronised RTC
- Telemetry output: RS 232 (RS485, LAN optional)
- Frequency: 30...80 kHz depending on measurement range
- Power supply: 12VDC / 110-240VAC
- Working temp: -20 °C up to +70 °C
- Storage temp: -40 °C up to +80 °C
- HYPACK integration

### Sub-bottom Profiling for Jack-Up with additional SUBPRO1210 system

- Increased safety for deploying and retracting the jack-up legs
- Increased stability
- Easy & quick verification of sub-bottom layers
- Identification of mud, sand, rock, as well as of the real seabed layer and low-density layers
- Identification of (buried) pipeline, cable and object detection
- Identification of “hollow” pocket sub surface (peats)
- Layer Density Identification for load bearing capacity and stability calculation

For more information on Sub-bottom Profiling please look at the SUBPRO1210 brochure or inquire one of our representatives



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**Calibration and maintenance free**

**Robust, precise, economical and compact**

**Modular system to fulfil different customer requirements and easy upgrade and maintenance due to simple exchange of modules**

**Reliable even under extreme conditions: flood, ice, storms, debris, fog, etc.**

**Low installation effort**

**Completely autonomous operation**

**Worldwide approved, tested and used**

**Easy to use Windows-Software for data viewing, logging and control**